

ILLINOIS COMMERCE COMMISSION

DOCKET NO. 12-0598

REBUTTAL TESTIMONY

OF

JEFFREY R. WEBB

Submitted on Behalf

of

THE MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.

(MISO)

April 12, 2013

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9
10 **I. INTRODUCTION**

11 **Q. Please state your name.**

12 A. My name is Jeffrey R. Webb.

13 **Q. Have you previously submitted testimony in this case?**

14 Yes. My prefiled, direct testimony was submitted in November 2012. My direct
15 testimony stated, among other matters, my professional qualifications and
16 responsibilities. It also supported approval of the Illinois Rivers Project.¹

17 **Q. Please summarize your professional background.**

18 A. I hold a bachelor's degree and a master's degree in electrical power engineering
19 from Rensselaer Polytechnic Institute. I have taught courses in circuit analysis,
20 distribution system analysis, and electric power system analysis at the Illinois

¹ This rebuttal testimony uses the same abbreviations as those found in my previously filed direct testimony.

21 Institute of Technology. In addition, I have served on national and regional
22 groups dedicated to ensuring transmission system reliability.

23
24 My professional career began at Commonwealth Edison Company (“ComEd”) in
25 1976 as a Transmission Planning Engineer. Between 1988 and September of
26 2000, I held a variety of supervisory and management positions in the bulk power
27 planning area of ComEd, including Technical Studies Supervisor, Bulk Power
28 Planning Supervisor, System Planning Engineer, and Transmission Planning
29 Manager.

30
31 I joined MISO in 2000, where I currently serve as the Senior Director of
32 Expansion Planning. My duties include directing the evaluation of reliability
33 studies in support of the development of MISO’s transmission expansion plan
34 (“MTEP”), and the overall coordination of planning study results to form a
35 cohesive regional transmission expansion plan. The region currently served by
36 MISO (its “footprint”) extends from Indiana to Eastern Montana and includes the
37 Canadian province of Manitoba. MISO’s footprint includes most of Illinois, with
38 the exception of the portion served by ComEd in the north.

42 **II. PURPOSE AND SCOPE**

43 **Q. What is the purpose of your rebuttal testimony?**

44 A. The purpose of this rebuttal testimony is to state concerns that I have regarding
45 the prefiled testimony submitted by witnesses Ragheb (Ragheb Family Ex. 1.0),
46 Dauphinais (MPCO Ex. 1.0), and Rockrohr (ICC Staff Ex. 1.0).

47
48 **III. RESPONSES TO TESTIMONY BASED UPON SOUND REGIONAL**
49 **TRANSMISSION PLANNING**

50 **A. Ragheb Testimony**

51 **Q. What concerns do you have regarding the testimony submitted by Dr.**
52 **Ragheb?**

53 A. I disagree with Dr. Ragheb's general thesis that MISO and ATXI have not
54 carefully planned the Project that is under consideration in this proceeding. Dr.
55 Ragheb explains that he "supports the development of renewable energy
56 resources, particularly wind resources in the Midwest, and acknowledges that
57 adequately designed transmission lines are needed to effectively dispatch the
58 electricity from the generation location to consumers."² The Illinois Rivers
59 Project has been carefully and more than adequately planned to support renewable
60 energy development as well as provide other benefits described in my direct
61 testimony.

62

² Ragheb Family Ex. 1.0, pages 6-7.

63 **Q. What does Dr. Ragheb state as his arguments against the Project?**

64 A. Dr. Ragheb states his two basic arguments against the design of the Project on
65 page 7 of his testimony. He states that the design was (i) “rush[ed]” and (ii) not
66 “compar[ed] [to] alternative approaches to . . . show[] that the chosen alternatives
67 do indeed satisfy the reliability, safety and economic requirements.”

68

69 **The Project Was Not Rushed, and Considered Alternative Designs**

70 **Q. Addressing Dr. Ragheb’s arguments, was the design of the Project rushed?**

71 A. No.

72 **Q. Please describe the overall process by which the Illinois Rivers Project**
73 **became a part of the MVP portfolio of projects.**

74 A. As I discuss in my direct testimony, beginning at page 17, MISO undertook a
75 multi-year planning process aimed at addressing the regional transmission plans
76 necessary to enable RPS mandates to be met at the lowest delivered wholesale
77 energy cost.

78

79 An early step in MISO’s planning effort was the Regional Generation Outlet
80 Study (“RGOS”), which was conducted between 2008 and 2010.³ The RGOS
81 initiative identified candidate transmission projects that would be compatible with
82 future system development of high voltage 345 kilovolt (“kV”) and 765 kV lines

³ See MISO’s Regional Generation Outlet Study, publicly available at:
<https://www.midwestiso.org/Planning/Pages/RegionalGenerationOutletStudy.aspx>.

83 as well as high voltage direct current (“HVDC”) options. I attach to this rebuttal
84 testimony the list of team members and contributors to RGOS (Attachment A).
85 The list includes MISO personnel and Ameren Transmission Company/Ameren
86 Services Company personnel, but also a large group of other representatives from
87 utilities, transmission companies, wind power developers, and others. This group
88 included representatives from American Electric Power, a company mentioned in
89 Dr. Ragheb’s testimony and the originator of one of his attachments.⁴ The RGOS
90 work was preceded by a joint study led by MISO, referred to as the Joint
91 Coordinated System Plan, which was an inter-regional planning effort involving
92 most of the major transmission operators in the Eastern Interconnection. That
93 study identified conceptual transmission improvements under several renewable
94 energy scenarios, and offered insights for long-term transmission development.
95 However, the study did not constitute a national plan of any sort.⁵
96
97 The indicative plans from the RGOS initiative were further developed in MISO’s
98 MTEP process. To develop the MVP, a Technical Study Task Force (“TSTF”) --
99 comprised of regulators, wind power developers, TOs, and participants in MISO’s
100 wholesale markets -- met with MISO engineers no less than monthly to guide the
101 MVP study process. Regular updates were provided to the MISO Planning

⁴ Ragheb Family Ex. 1.0, pages 20-21 and associated Ragheb Family Ex. 1.6.

⁵ There is no “nationwide plan[] call[ing] for 745kV AC or HVDC transmission facilities,” as stated by Dr. Ragheb on page 9 of his testimony. Some authors and entities have circulated such ideas as part of conceptual plans, as shown in Ragheb Family Ex. 1.6 (AEP’s “Interstate Transmission Vision for Wind Integration”).

102 Advisory Committee, Planning Subcommittee, and other MISO stakeholder
103 groups. Over 200 such stakeholder meetings were held during the 2008-2011
104 time period. The MVP portfolio was approved in MTEP 11 in this collaborative
105 fashion to effectively meet the Renewable Portfolio Standards in effect within
106 MISO and to provide additional benefits attributable to the Project. The Illinois
107 Rivers Project is part of that MVP portfolio.

108 **Q. Was there a rush to address the more localized needs in development of the**
109 **Illinois Rivers Project?**

110 A. No. MISO set out, with its MVP portfolio analysis that I described previously, to
111 take advantage of the link between local and regional reliability and economic
112 benefits. Representatives of transmission owners, such as those from Ameren
113 Services, identified potential transmission expansions that also met more localized
114 needs in Illinois and other regions.⁶ The stakeholder process, through which the
115 elements that comprise the Illinois Rivers Project were made part of the MVP
116 portfolio, involved years of work.

117

118 **Alternatives were Considered, and the Project was Selected**

119 **Q. Addressing another of Dr. Ragheb's arguments, were alternative designs**
120 **considered in the analyses that resulted in formulation of the MVP portfolio?**

⁶ Local system needs and benefits of the Illinois Rivers Project are described in the direct testimony of ATXI Witness Kramer.

121 A. Yes. Each of these studies considered options involving building at the 345 kV
122 and 765 kV level, as well as building HVDC facilities.⁷ The MVP portfolio is
123 compatible with all of these designs for further development of the transmission
124 system.

125 **Q. Why were alternative voltages and technologies not selected for the MVP**
126 **portfolio?**

127 A. These designs were more suitable for meeting RPS requirements in a region
128 broader than the MISO footprint, where there may be an increased need for
129 exports. In contrast, the MVP portfolio is suitable for meeting the RPS
130 requirements in the MISO region. In addition, development of higher voltage
131 solutions would require close coordination with development of interconnecting
132 facilities in adjacent regions. The plans for those regions to meet requirements for
133 the development of renewables have not been solidified. MISO does not believe
134 that delay in the implementation of transmission upgrades that provide for the
135 satisfaction of RPS requirements in the MISO region and for achieving the
136 benefits of the MVP portfolio can wait for these additional, external
137 developments. Design at these alternative voltages and using alternative
138 technologies is not required.

139

140

⁷ One project in the MVP portfolio, MVP14, is a 765 kV transmission line located in Indiana that was selected as a superior alternative to upgrading a 345 kV line in the area. See footnote 3.

141 **B. Dauphinais Testimony**

142 **Q. What concerns do you have regarding the testimony submitted by Mr.**
143 **Dauphinais?**

144 A. The portion of Mr. Dauphinais' testimony that discusses design of the Illinois
145 Rivers Project (as opposed to site selection)⁸ attempts to re-engineer a high
146 voltage transmission line by litigation rather than by means of the extensive,
147 transparent, and collaborative process that I have discussed in this rebuttal
148 testimony and that was used to develop the Illinois Rivers Project as a part of
149 MISO's MVP portfolio. This FERC Order 890-compliant regional planning
150 process provides ample opportunity for stakeholder vetting of alternative
151 proposals in a manner that includes all stakeholders in MISO's regional planning
152 process. Mr. Dauphinais' alternative proposals to the Mt. Zion substation and
153 transformer are matters in which all stakeholders in the MTEP process should be
154 permitted to engage.

155 **Q. Can you explain your disagreement with Mr. Dauphinais' approach in more**
156 **detail?**

157 A. Yes. The Illinois Rivers Project, as designed, has been evaluated by MISO and its
158 stakeholders as providing a 345 kV connection at a new Mt. Zion substation. The
159 MISO regional planning process adheres to the FERC Order 890 open and
160 transparent planning principles. This process involves numerous evaluations of
161 project proposals and their effectiveness, as I have described earlier in this rebuttal

⁸ See MPCO Ex. 1.0, pages 44-68.

testimony, and provides multiple opportunities for stakeholders to review project need, design, and effectiveness. Throughout the multi-year planning process involved in developing the MVP portfolio (including the Illinois Rivers Project), this project has been considered and finally approved by MISO's Board of Directors as an integral part of the transmission system in MISO's footprint. In order for the regional planning process to be as effective as possible, stakeholders should make every effort to identify and address, within the regional planning processes potential issues that could result in redesign.

When a project is redesigned after the extensive regional planning process, MISO must ensure that the redesigned project will continue to meet the initial needs ascribed to the project. This review process should involve engaging MISO stakeholders (and finally MISO's Board of Directors) to ensure continued transparency surrounding project development and cost evaluation. In the worst case scenario, such reengagement could lead to delays in the completion of an urgently needed project that may take years to construct. In addition, after a project is approved for the regional plan, that project is assumed to be a part of the base plan, and incremental system needs are identified relying upon that base plan. While modifications may occur to approved plans, such changes have ripple effects on the identification of necessary projects in subsequent planning cycles. These ripple effects can contribute to delays in addressing other transmission system needs. For these reasons, modifications to projects subsequent to the

184 collaborative regional planning process should be minimized to the extent
185 possible.

186 **Q. Was the Mt. Zion substation and transformer part of the model and design**
187 **of the MVP that was evaluated by MISO and discussed with MISO**
188 **stakeholders during the lengthy MVP open and transparent planning**
189 **process?**

190 A. Yes. Because the development of the Mt. Zion facilities as a solution to local area
191 reliability issues are facilitated by the development of the MVP, these facilities
192 are included in the overall MVP facilities.

193 **Q. How would MISO categorize planned facilities that would provide a**
194 **transmission solution to a local area reliability issue if such an improvement**
195 **did not depend on the MVP for its implementation, such as the alternative**
196 **proposal for local area support described by Mr. Dauphinais?**

197 A. These facilities would be baseline reliability projects.

198 **Q. As a baseline reliability project, how would the costs be recovered for the**
199 **alternative local area solution?**

200 A. Costs for baseline reliability projects are recovered from the ratepayers of the
201 local area utility rather than from ratepayers region-wide. Region-wide recovery
202 of costs applies to MVP facilities.

203

204

205

C. Rockrohr Testimony

Q. What concerns do you have regarding the testimony submitted by Mr. Rockrohr?

A. I have concerns about two aspects of Mr. Rockrohr's recommendations. First, Mr. Rockrohr recommends that several 345/138 kV transformer installations not be approved in this case because Ameren Illinois Company ("AIC") has not stated its intention in this docket to connect to these proposed transformers.⁹ Second, Mr. Rockrohr recommends that certain facilities be excluded from approval because they "appear to be unnecessary"¹⁰ and that certain line segments be excluded from any approvals.¹¹

Ameren Illinois Is Obligated To Connect Its Facilities

Q. Can you further explain your concerns over Mr. Rockrohr's recommendations?

A. Yes. With respect to my first concern regarding the connection of transformers, the Project can only achieve all of its intended benefits if the 345/138 kV transformers that are part of the Project are installed and connected to the AIC system. Both ATXI and AIC are MISO TOs, and both have an obligation under MISO's TOA to support projects approved by MISO's Board of Directors.

⁹ ICC Staff Ex. 1.0, pages 2-3.

¹⁰ *Id.*

¹¹ *Id.*, page 3.

The obligation by AIC to interconnect with the new 345/138 kv transformers is contained in portions of the TOA, as reproduced here:

Each Owner shall use due diligence to construct transmission facilities as directed by the Midwest ISO in accordance with Article Three, Section I, Paragraph C of this Agreement and Appendix B to this Agreement, subject to such siting, permitting, and environmental constraints as may be imposed by state, local, and federal laws and regulations, and subject to the receipt of any necessary federal or state regulatory approvals. Such construction shall be performed in accordance with Good Utility Practice, industry standards, and any applicable requirements of federal or state laws or regulatory authorities.¹²

Approval of the Midwest ISO Plan by the Board certifies it as the Midwest ISO's plan for meeting the transmission needs of all stakeholders subject to any required approvals by federal or state regulatory authorities. The Midwest ISO shall provide a copy of the Midwest ISO Plan to all applicable federal and state

¹² TOA, Version: 0.0.0 Effective: 7/31/2010, Art. Four, Section I, C ("Rights, Powers, and Obligations of the Owners and Users") (emphasis added), publicly available at: <https://www.misoenergy.org/Library/Repository/Tariff/Rate%20Schedules/Rate%20Schedule%2001%20-%20Transmission%20Owners%20Agreement.pdf>.

regulatory authorities. **The affected Owner(s) shall make a good faith effort to design, certify, and build the designated facilities to fulfill the approved Midwest ISO Plan.**¹³

The Illinois Rivers Project has been approved by MISO's Board, and AIC is obligated under the TOA to support that decision. MISO expects AIC, as one of its TOs, to timely connect its facilities to the Illinois Rivers Project once those facilities are in place.

The Project Should Not Be Significantly Re-Designed

Q. Can you further explain your concern over the recommendation that certain facilities and/or line segments should be excluded from the approvals requested in this proceeding?

A. From an overview basis, my response is the same as my response to the design criticism by Mr. Dauphinais. In order for the regional planning process to be as effective as possible, stakeholders should be involved in the regional planning processes so that they can vet issues that could result in redesign. As I stated in my direct testimony,¹⁴ the purpose of MISO's extensive planning functions are to involve all stakeholders in a process that arrive at the most cost-efficient expansion plan that will meet local and regional needs for reliability, optimize access to economic power

¹³ TOA, Version: 0.0.0 Effective: 7/31/2010, Appendix B, Section VI ("Development of The Midwest ISO Transmission Plan") (emphasis added).

¹⁴ MISO Ex. 1.0 (Webb Testimony), page 31, beginning on line 626.

resources, and deliver other important benefits for ultimate consumers and society as a whole.

The MTEP process designs a complex system that will serve both the short- and long-term needs of the electric grid. If a key element of the regional expansion plan is not constructed, especially a ‘backbone’ element designed for both reliability and economic attributes, considerable re-design could involve delay, additional costs (including the need for new generation), and impacts on transmission system reliability. The separate proceedings, recommended by Mr. Rockrohr for approval of portions of the Project,¹⁵ raise the concern that I stated earlier in this rebuttal testimony: Hazards exist in connection with delay in the completion of the entire Project. The entire Project must be completed to achieve the benefits of urgently needed facilities that take years to construct.

IV. CONCLUSION

Q. Has your recommendation in support of the Illinois Rivers Project, as proposed, changed as the result of the testimony filed by intervenors and the ICC Staff in this proceeding?

A. No. The Project as proposed by ATXI is a necessary project that meets local load serving needs in the area. The Project is an integral part of MISO’s Regional Plan

¹⁵ ICC Ex. 1.0, page 3.

284 for the continued development of a reliable and efficient regional transmission
285 system.

286 **Q. Does this conclude your prepared rebuttal testimony?**

287 **A. Yes, it does.**